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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/695,736   | 10/24/2003  | Peter Georgantzis    | 2000-012-B          | 6523             |
| 7590   | 12/08/2004  |                      | EXAMINER            |                  |
| U.S. Army TACOM-ARDEC<br>Attn: AMSTA-AR-GCL<br>M. Sachs / Building 3<br>Picatinny Arsenal, NJ 07806-5000 |             |                      | PARSLEY, DAVID J    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3643                |                  |

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

|                 |                 |              |                    |
|-----------------|-----------------|--------------|--------------------|
| Application No. | 10/695,736      | Applicant(s) | GEORGANTZIS ET AL. |
| Examiner        | David J Parsley | Art Unit     | 3643               |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 29 September 2004.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3 and 5-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 September 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## Detailed Action

### *Amendment*

1. This office action is in response to applicant's amendment dated 9-29-04 and this action is final.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,906,860 to Johns in view of GB Patent No. 1085045.

Referring to claim 1, Johns discloses a munition comprising, a cartridge – at 12-28, comprising a base member – at 12,14, and an adapter case – at 28, at an opposite end, a solid

barrel cause spinning of the munition, wherein grooves – proximate 58,60, further weaken the structure of the canister, so that during flight, air pressure is exerted on the cap and a centrifugal force results from the rifled spinning movement, causing the canister to break apart and the payload to be dispersed – see for example column 2 lines 53-68. Johns does not disclose wherein the canister further comprises a plurality of longitudinal rifling grooves that provide a rifled spinning movement to the canister during flight. The British patent does disclose the canister further comprises a plurality of longitudinal rifling grooves that provide a rifled spinning movement to the canister during flight – see for example page 1 lines 60-70 and page 2 lines 12-60. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Johns and add the rifled grooves of the British patent, so as to allow for the munition to have a greater penetration force.

Referring to claim 5, Johns as modified by the British patent further discloses the payload comprises steel balls – at 62 of Johns.

Referring to claim 7, Johns as modified by the British patent further discloses the cap – a t 38 of Johns, is generally flat.

Referring to claim 8, Johns as modified by the British patent further discloses the canister at 22 of Johns, comprises a closed, generally dome-shaped payload area – proximate 16, that is secured to the adapter case – at 28 – see for example figure 1 of Johns.

Referring to claim 9, Johns as modified by the British patent further discloses the canister is releasably secured to the adapter case – see proximate 58,60 in figure 1 of Johns.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Johns as modified by the British patent as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2002/0124759 to Amick. Johns as modified by the British patent does not disclose the canister is made of aluminum. Amick discloses the canister – 92 is aluminum – see page 6 paragraph 0057. Therefore it would have been obvious to one of ordinary skill in the art to take the ammunition of the Johns as modified by the British patent and add the canister made of aluminum of Amick, so as to make the device more lightweight while maintaining strength and rigidity.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johns as modified by the British patent as applied to claim 1 above, and further in view of U.S. Patent No. 4,982,666 to Wohler. Johns as modified by the British patent does not disclose the payload comprises a combination of tungsten balls and tungsten cubes. Wohler discloses the payload comprises a combination of tungsten balls – 122 and tungsten cubes – 120 – see for example figures 3-5 and column 8 lines 49-68 which states the balls and cubes are made of a hard metal and tungsten is a hard metal used as a shot in shell casings, known to those of ordinary skill in the art. Therefore it would have been obvious to one of ordinary skill in the art to take the ammunition of Johns as modified by the British patent and add the payload comprising tungsten balls and tungsten cubes of Wohler, so as to allow for the payload objects to disperse during firing of the ammunition so as to ensure that the target is hit.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johns as modified by the British patent as applied to claim 1 above, and further in view of U.S. Patent No. 5,563,365 to Dineen et al. Johns as modified by the British patent does not disclose the primer is

affixed to the base member by a spring clip. Dineen et al. does disclose the primer is affixed to the base member – at 11 by a spring clip – at 12,20 – see for example figures 1-1B. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Johns as modified by the British patent and add the primer affixed to the base member by a spring clip of Dineen et al., so as to allow for the primer to be securely held to the cartridge.

### *Response to Arguments*

3. Regarding claim 1, applicant argues that the Johns reference US 3906860 is not combinable with the British reference GB 1085045, in that the flash tube and shaped charge disclosed in the British reference would be in interference with the fuse and bursting charge of Johns when combined together. This may be the case, however it has no bearing on the patentability of the claimed invention in that as seen above in paragraph 2 of this office action, the British reference is used to teach the rifling grooves on the canister only and is not used to teach the use of a flash tube and shaped charge. Therefore to show the use of rifling grooves on the canister the British patent is combinable with the Johns reference as stated above in paragraph 2.

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bursting charge of the Johns reference, however as seen above only the rifling grooves on the canister are being taken from the British reference to be combined with the canister of the Johns reference and the flash tube and shaped charge are not being combined with the fuse and bursting charge of the Johns reference as seen in paragraph 2 above.

Further, applicant offers advantages of the present invention over the prior art and indicates possible defects in the prior art. However, it is deemed that the combination of the Johns and British references discloses the claimed invention as seen above in paragraph 2.

*Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

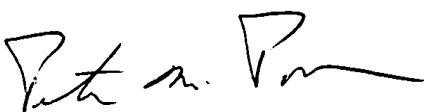
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J Parsley whose telephone number is (703) 306-0552. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (703) 308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DP  
David Parsley  
Patent Examiner  
Art Unit 3643

  
**PETER M. POON**  
**SUPERVISORY PATENT EXAMINER**

12/2/04